After shocks imminent for the global auto sector

Complexities and intricacies in modern automotive supply chains make it difficult to gauge the immediate and mid-term effects of the devastating events in Japan. But the global auto industry has recently proven to be adaptable to rapid change, which may provide much needed resilience.

Global Outlook

The immediate effects of the March 11 earthquake and tsunami on Japan’s auto sector have been well documented. Based on estimates available at the time of release, PwC AutoFacts’ 2011 Q2 assembly forecast indicates that near-term topline growth in 2011 will be marginally lower as a direct result of ongoing challenges emanating from the pivotal Developed Asia-Pacific area.

Despite a weaker outlook stemming from turmoil in Japan, global assembly will largely be balanced by stronger than previously estimated growth in Developing Asia-Pacific, North America, and Europe. An additional effect of slightly lower global assembly prospects for this year, is a 2012 vehicle production outcome that may finish significantly ahead of prior forecasts.

Looking below the topline, the degree to which events in Japan have disrupted global automotive production is, to an extent, an unfortunate by-product of planned manufacturing shifts. In recent years, the north eastern region of Japan, including the area most severely damaged by the disaster, has been the focus of the Japanese auto sector’s effort to decentralize its manufacturing operations. For years, the domestic industry had taken advantage of the northern region’s lower costs and developed infrastructure.

But decentralisation was not just adopted due to cost advantages – it was also a policy of risk mitigation, focused on reducing the chance of natural disaster interference, which posed a threat to major manufacturing operations.

Despite this policy, it is clear that the domestic and global auto industry’s value chains remain vulnerable. High levels of interdependence and intricacy have revealed that disrupted supplies of seemingly insignificant components can halt distant global operations. For example, an important paint pigment plant in Japan is the sole source for specific vehicle paints and supply interruption has caused problems in production scheduling around the world. Further, the sheer length of supply chains dictates that the full scale of industry problems may take considerable time to surface.

The earthquake and tsunami exposed the auto industry’s inherent structural risks and will likely mandate a reevaluation of global manufacturing and supply chain risk management strategies.

Ordinarily, it might be expected that power shortages in the east of the country could be met by reassigning generating capacity in the west, but the situation in Japan is not straightforward. Japan’s power grid is divided: western Japan uses 60Hz to transmit electricity, while east and northeast Japan uses 50 Hz. Therefore, while western Japan has sufficient electricity to send to the east and northeast (where the damage to power plants was extensive), the nation’s ability to do so is limited. There are only three converter stations in the country, which also limits capacity. Therefore, power outages, shortages, and energy rationing are expected to continue in the near-term. Shortages are likely to become most acute in the summer months (due to demand for air-conditioning) causing disruption in many areas – including the automotive sector.
Power shortages in Japan are also likely to increase demand for oil. Typically, events that have a negative impact on GDP – the Japanese disaster will cost the country an estimated 3-6% of its GDP in 2011 – result in lower demand for oil due to the economic slowdown. However, because of the power shortfall caused by the compromised nuclear facility at Fukushima, demand from other power sources will likely increase, potentially applying pressure to oil prices, which remain volatile due to conflicts in North Africa and the Middle East. Rising oil prices should accelerate the change in mix of vehicle demand anticipated due to fuel economy and CO2 mandates in global markets. Consequently, electric vehicles and fuel saving technologies could receive a timely boost just as many are being introduced to market.

While there are countless near-to mid-term effects of the disaster, the long-term, often indirect effects may ultimately be more troubling for the Japanese and wider industry.

For example, Japan’s auto sector was already struggling with export efficiency due to the strength of the yen versus other major currencies. As has been witnessed, the yen strengthened in the immediate aftermath as markets reacted to the expectation that Japanese savings and investment spending would be repatriated from overseas to fund the domestic rebuilding effort. Although the coordinated intervention of global currency markets reduced some of the currency’s gains, it became clear that the yen’s value represents an ongoing issue for Japanese exports. This trend could accelerate the relocation of Japanese production overseas to service global markets and ultimately weaken the domestic industry in the mid-to long-term.

Further, a strong yen is likely to have repercussions for global interest rates. Interest rates in many major economies are currently at historic lows, in an attempt to stimulate markets still suffering from the global financial crisis. With economic recovery in a fragile state, any significant upward movement in interest rates may dampen national recoveries, with negative demand implications for the automotive sector.

Recent history has demonstrated the automotive industry’s resilience and resourcefulness in response to external shocks. While the global automotive network is once again facing an extremely difficult environment, this complex challenge should not derail industry progress predicated on meeting new growth opportunities and responding to increasing competitive, regulatory, and environmental challenges.

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